

WHAT IS CLAIMED IS:

1. A system for processing a data packet, comprising:

a paddle card slot operable to:

5 receive a first paddle card operable to support a first communication protocol; and

receive a second paddle card operable to support a second communication protocol; and

a packet processor coupled to the paddle card slot and operable to:

10 determine whether a received paddle card comprises the first paddle card or the second paddle card;

identify the communication protocol supported by the received paddle card;

15 receive a plurality of data packets from the received paddle card;  
process the data packets according to the identified communication protocol; and

transmit the data packets to a switch card.

2. The system of Claim 1, wherein the packet processor is operable to:

receive a plurality of data packets from the switch card;

20 process the data packets according to the identified communication protocol;

and

transmit the data packets to the received paddle card.

3. The system of Claim 1, wherein the packet processor comprises a

25 receiving control unit operable to establish a link operable to communicate the data packets according to the identified communication protocol.

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4. The system of Claim 1, wherein the packet processor comprises a receiving control unit comprising:

a first protocol state machine operable to establish a link operable to support the first communication protocol; and

5 a second protocol state machine operable to establish a link operable to support the second communication protocol, the receiving control unit operable to select the first protocol state machine or the second protocol state machine to establish a link operable to support the identified communication protocol.

10 5. The system of Claim 1, wherein:

the received paddle card comprises a plurality of lanes operable to communicate the data packets; and

15 the packet processor comprises a receiving control unit comprising a plurality of ports and operable to associate the lanes with the ports in response to the identified communication protocol.

6. The system of Claim 1, wherein the packet processor comprises a forwarding system comprising a first level and a second level, the first level operable to:

20 compare a packet destination address of a first data packet to an entry destination address;

assign a port identifier if the packet destination address matches the entry destination address;

25 transmit the data packet to an entry of the second level in response to the comparison; and

process a second data packet substantially when the second level processes the first data packet.

7. A method for processing a data packet, comprising:

receiving a paddle card comprising a first paddle card operable to support a first communication protocol or a second paddle card operable to support a second communication protocol;

5 identifying the communication protocol supported by the received paddle card;

receiving a plurality of data packets from the received paddle card;

processing the data packets according to the identified communication protocol; and

10 transmitting the data packets to a switch card.

8. The method of Claim 7, further comprising:

receiving a plurality of data packets from the switch card;

15 processing the data packets according to the identified communication protocol; and

transmitting the data packets to the received paddle card.

9. The method of Claim 7, further comprising establishing a link operable to communicate the data packets according to the identified communication protocol.

20 10. The method of Claim 7, further comprising selecting a first protocol state machine or a second protocol state machine to establish a link operable to support the identified communication protocol, the first protocol state machine operable to establish a link operable to support the first communication protocol, the  
25 second protocol state machine operable to establish a link operable to support the second communication protocol.

30 11. The method of Claim 7, further comprising associating a plurality of lanes with a plurality of ports in response to the identified communication protocol, the lanes coupled to the received paddle card, the ports operable to receive the data packets from the lanes.

12. The method of Claim 7, further comprising:

receiving a first data packet at a forwarding system comprising a first level  
and a second level;

5 comparing a packet destination address of the first data packet to an entry  
destination address;

assigning a port identifier if the packet destination address matches the entry  
destination address;

transmitting the first data packet to an entry of the second level in response to  
the comparison; and

10 processing a second data packet substantially when the second level processes  
the first data packet.

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13. Logic for processing a data packet, the logic encoded in media and operable to:

receive a paddle card comprising a first paddle card operable to support a first communication protocol or a second paddle card operable to support a second communication protocol;

identify the communication protocol supported by the received paddle card;  
receive a plurality of data packets from the received paddle card;  
process the data packets according to the identified communication protocol;

and

transmit the data packets to a switch card.

14. The logic of Claim 13, further operable to:

receive a plurality of data packets from the switch card;  
process the data packets according to the identified communication protocol;

and

transmit the data packets to the received paddle card.

15. The logic of Claim 13, further operable to establish a link operable to communicate the data packets according to the identified communication protocol.

16. The logic of Claim 13, further operable to select a first protocol state machine or a second protocol state machine to establish a link operable to support the identified communication protocol, the first protocol state machine operable to establish a link operable to support the first communication protocol, the second protocol state machine operable to establish a link operable to support the second communication protocol.

17. The logic of Claim 13, further operable to associate a plurality of lanes with a plurality of ports in response to the identified communication protocol, the lanes coupled to the received paddle card, the ports operable to receive the data packets from the lanes.

18. The logic of Claim 13, further operable to:

receive a first data packet at a forwarding system comprising a first level and a second level;

compare a packet destination address of the first data packet to an entry destination address;

assign a port identifier if the packet destination address matches the entry destination address;

transmit the first data packet to an entry of the second level in response to the comparison; and

process a second data packet substantially when the second level processes the first data packet.

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19. A system for processing a data packet, comprising:

means for receiving a paddle card comprising a first paddle card operable to support a first communication protocol or a second paddle card operable to support a second communication protocol;

5 means for identifying the communication protocol supported by the received paddle card;

means for receiving a plurality of data packets from the received paddle card;

means for processing the data packets according to the identified communication protocol; and

10 means for transmitting the data packets to a switch card.

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20. A system for processing a data packet, comprising:

a paddle card slot operable to:

receive a first paddle card operable to support a first communication protocol; and

5 receive a second paddle card operable to support a second communication protocol; and

a packet processor coupled to the paddle card slot, the packet processor comprising a first protocol state machine operable to establish a link operable to support the first communication protocol, and a second protocol state machine operable to establish a link operable to support the second communication protocol, the packet processor operable to:

determine whether a received paddle card comprises the first paddle card or the second paddle card;

15 identify the communication protocol supported by the received paddle card;

select the first protocol state machine or the second protocol state machine to establish a link operable to support the identified communication protocol;

receive a plurality of data packets from the received paddle card;

20 process the data packets according to the identified communication protocol;

transmit the data packets to a switch card;

receive a plurality of data packets from the switch card;

process the data packets according to the identified communication protocol; and

25 transmit the data packets to the received paddle card.